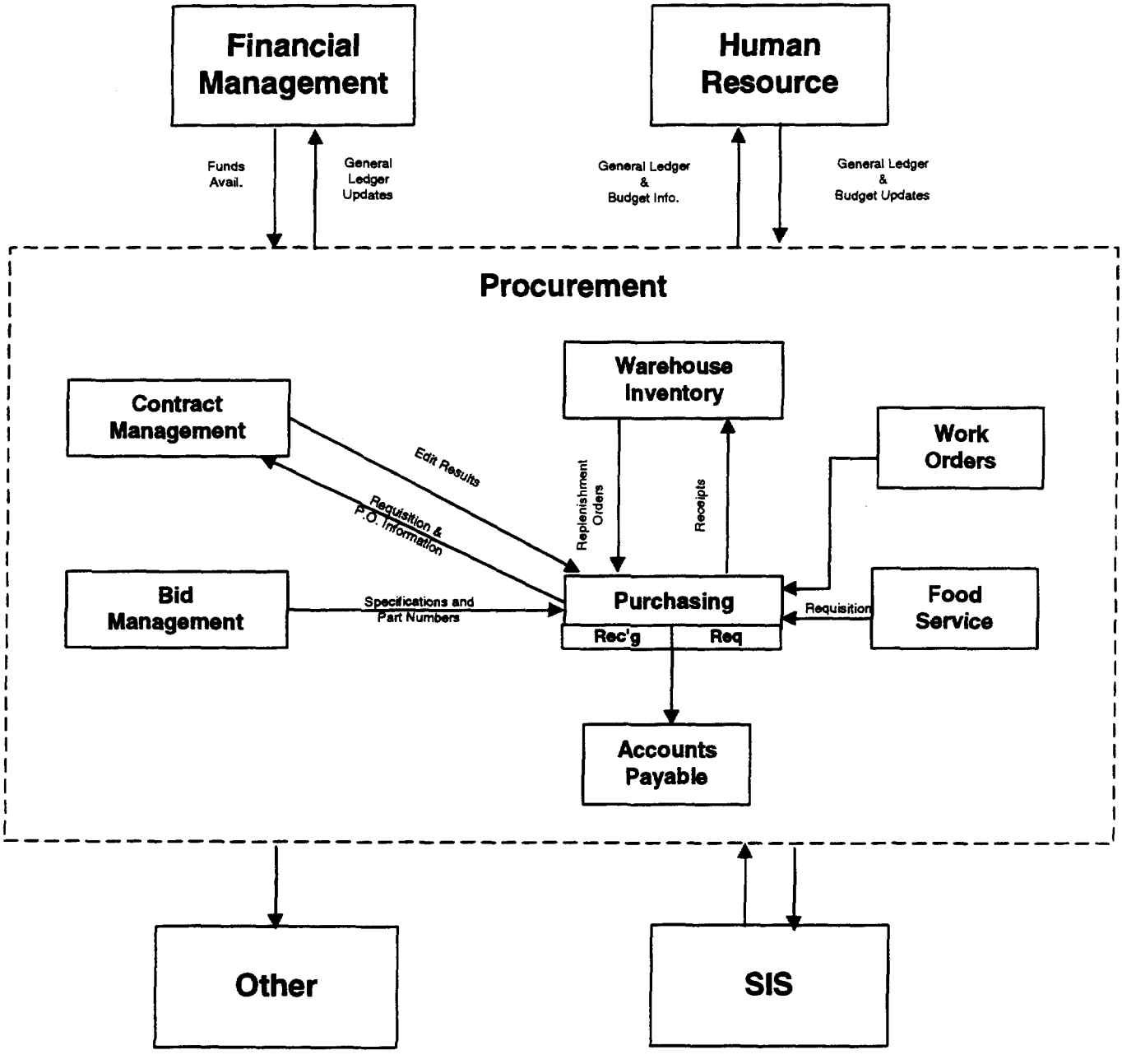
Detroit Public Schools
Administrative Systems



FINANCIAL SYSTEMS
Fixed Assets System

System Description

The Fixed Assets System is primarily a data gathering, reporting system dealing with the acquisition, transfer, and general tracking of Detroit Public Schools assets.

System Requirements

- Provide schools with on-line capability to update fixed assets and review computer records of fixed assets located in the school.

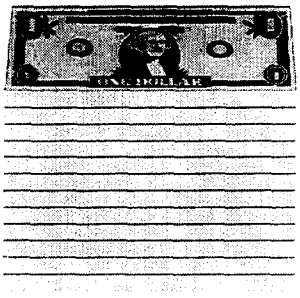
FINANCIAL SYSTEMS
Financial Information System

System Description

The Financial Information System is an accounting and financial reporting system that allows for the recording and monitoring of the receipts and disbursements of the funds administered by Board of Education. The system provides many of the reports mandated by State and Federal agencies. The system allows schools, area offices, control office divisions and program coordinators to customize reports to meet their specific requirements.

System Requirements

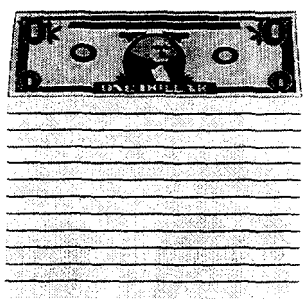
- Improve the reports and ease of use of reports available to schools and offices.



FINANCIAL SYSTEMS
Budget Development Sub-System

System Description
The Budget Development System creates the annual budget of the Detroit Public Schools.

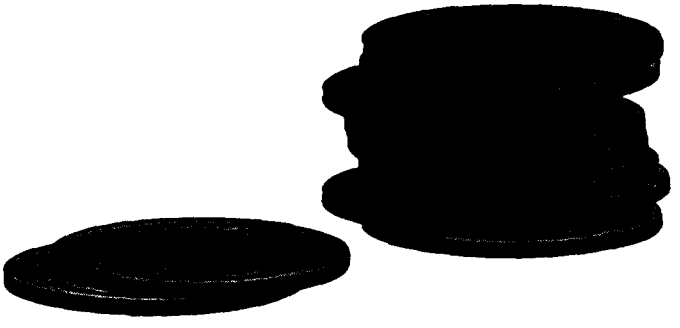
System Requirements
• Provide the capability for on-line entry of budget development information by schools and offices.



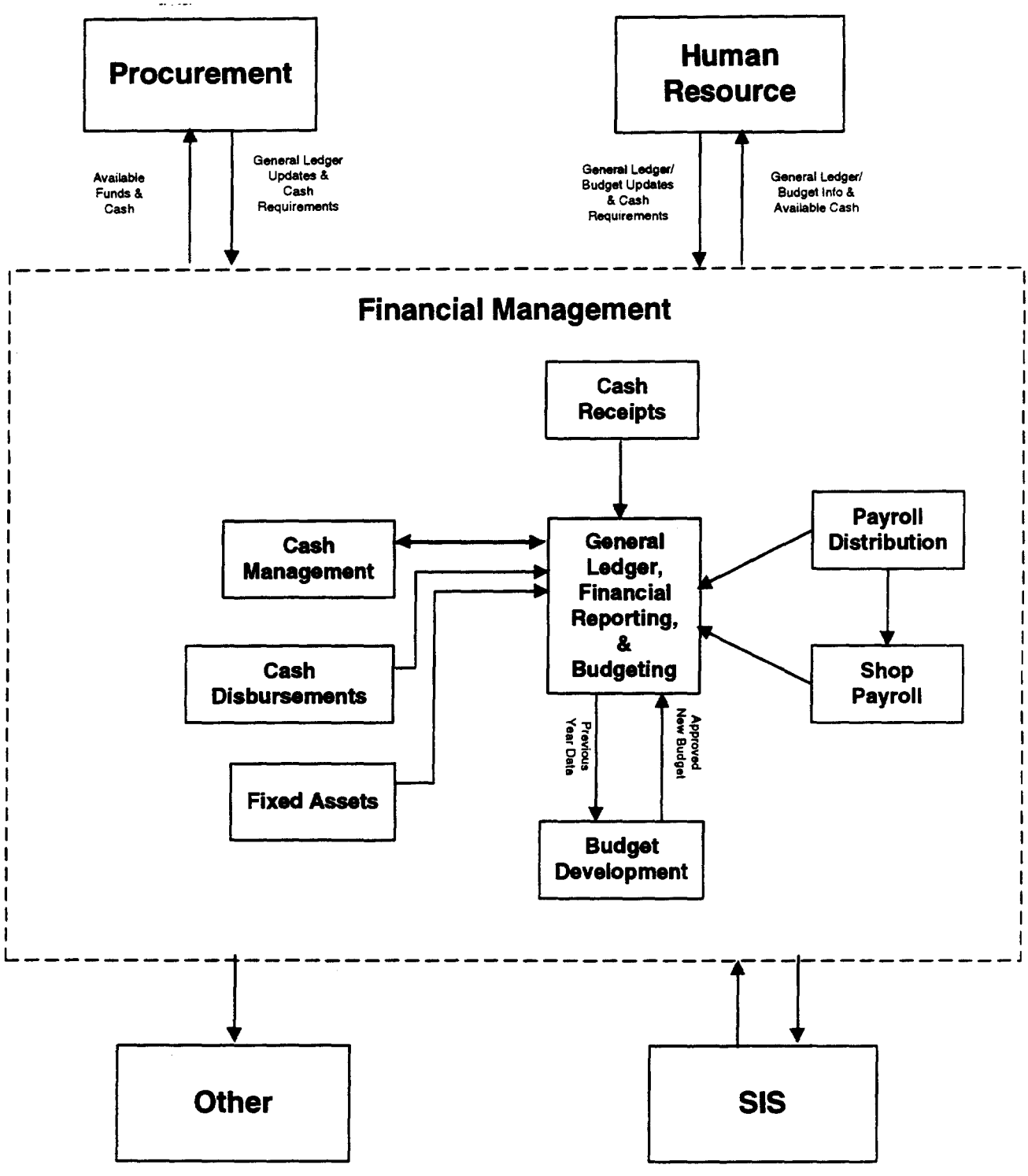
FINANCIAL SYSTEMS
Cash Management Sub-System

System Description
The Cash Management Sub-System provides the capability to control the cash flow of the district. It tracks ins and outs of cash and provides the opportunity to plan investments and cash needs.

System Requirements
A cash management system has been implemented.



Detroit Public Schools
Administrative Systems



OTHER SYSTEMS
Office Sub-Systems

System Description

The dedicated use of computers, devices, and applications designed to control and facilitate routine office procedures such as word processing, printing, spreadsheet, and electronic mail exists in various stages of development and implementation throughout the District.

The Office Systems strategy of the Detroit Public Schools is based on the integration of computer three platforms. They are: (1) the AS400 computer; (2) Novell based servers; and (3) Internet WEB browsers utilizing MOSAIC as a graphical interface. The platforms will be integrated using LAN technology at both the office and school level.

System Requirements

- Expand the use of WordPerfect Office (now known as GroupWise) as the primary E-mail platform for the Detroit Public Schools.
- Using Office Vision as a link, provide access to WordPerfect Office E-mail to those who E-mail access is limited to the AS400 computer.
- Link DPSNet E-mail to WordPerfect Office so that users with DPSNet mail boxes can have their DPSNet mail and Internet mail routed directly to WordPerfect Office.
- Select and implement a workflow management software package to allow users to automate task management such as telephone call assignment and other task assignments.
- Implement Computer Output to Laser Disk (COLD) so that most computer printed reports will be eliminated and replaced with on-line access to the printed report including keyword index capabilities.
- Standardize on Microsoft Word as the district's word processor of choice while continuing to provide support to those who would rather use WordPerfect and Microsoft Works.
- Standardize on Microsoft Excel as the district's spreadsheet of choice while continuing to provide support to those who would rather use Lotus 123.
- Implement Calendaring on WordPerfect Office while continuing to support the Calendaring feature of Office Vision on AS400.

OTHER SYSTEMS
Community Use Of Schools Sub-System

System Description
The Community Use of Schools Sub-System provides a process to reserve rooms, equipment and support staff for community use functions.

System Requirements
This system is fully operational.

OTHER SYSTEMS
Board Office Information Sub-System

System Description

The Board Office must produce twenty-seven Board Reports each year and maintain a complete history of Board proceedings.

System Requirements

- Implement a paperless Board Report development process and use it as a model for paperless offices throughout the school system.

OTHER SYSTEMS
Systems Project Control Sub-System

System Description

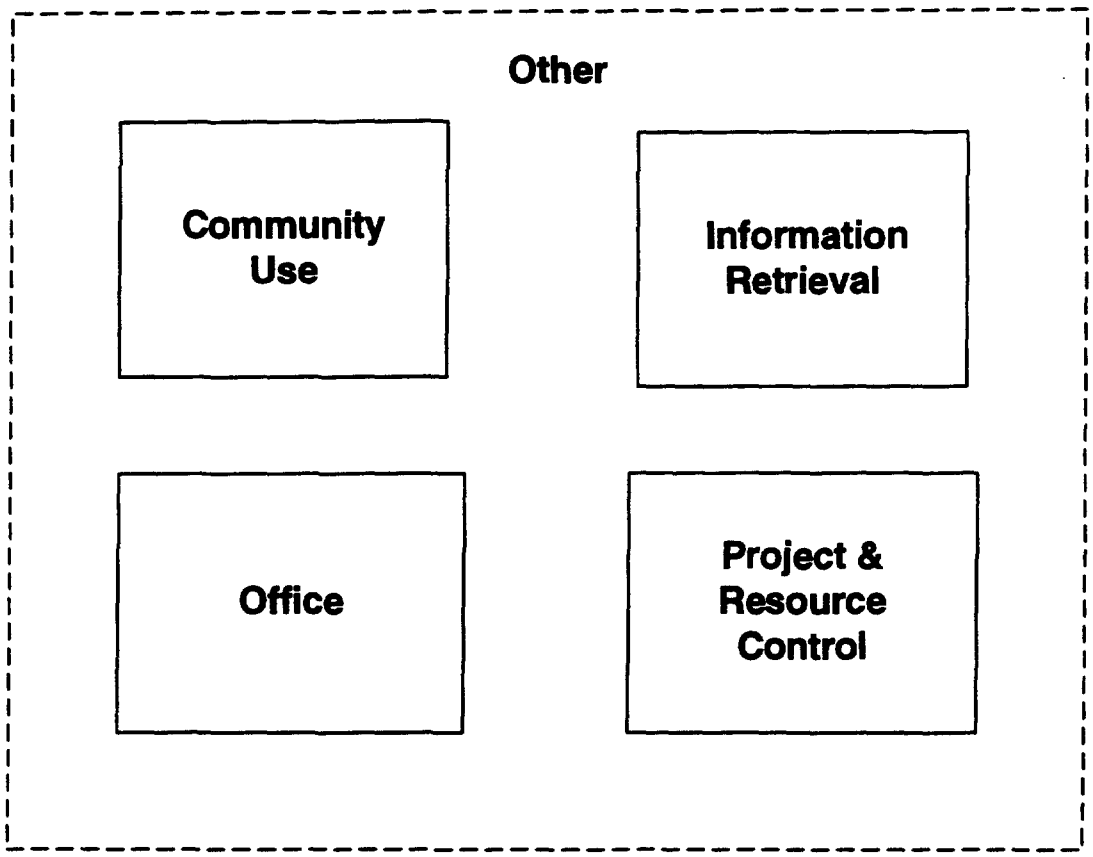
This system will track the development and implementation of computer systems project. It tracks resource and man-hours

System Requirements

- The system must have the ability to enter time and attendance for data processing staff and assign their time to individual projects.

- The system must have the ability to product man-power loading charts which indicate how much work is assigned to an individual.

Detroit Public Schools
Administrative Systems



VII. BENEFITS

ben e fit (ben'ĀfitĀ) n. : anything contributing to an improvement in condition; advantage; help.

Benefits to students, staff, parents and community are the goals of any plan devised by the Detroit Public Schools. For benefits to be realized, however, those receiving them must recognize that there will be improvement in the conditions which exist. For example, the benefit of implementing technology into all of our schools immediately, is to prepare students for the present and future world.

Benefits identified by students and staff during interview sessions are presented below.

Students

Students expressed the desire to have the technological tools to continuously learn and demonstrate knowledge in all subject areas and life goals.

Services to Students

- Increase feedback of grades, test results, scheduling and other student information.
- Provide equity to all students.
- Increase access to technology.
- Improve attendance record keeping.
- Meet needs of "at risk" students
- More accurate information for student files.

High Achievement and Success

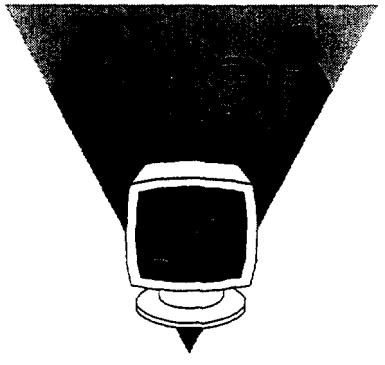
- Improve test scores.
- Complete more work in a day.
- Increase individualized instruction.
- Increase learning opportunities.
- Increase problem solving and critical thinking abilities.
- Increase student interaction, communication and creativity.

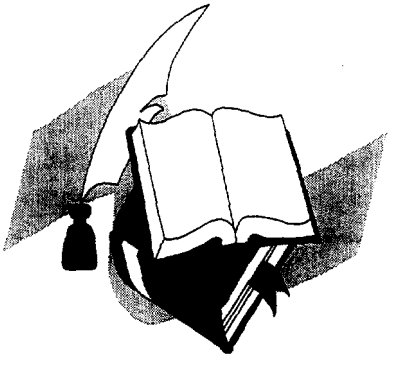
Enhanced Learning and Motivation

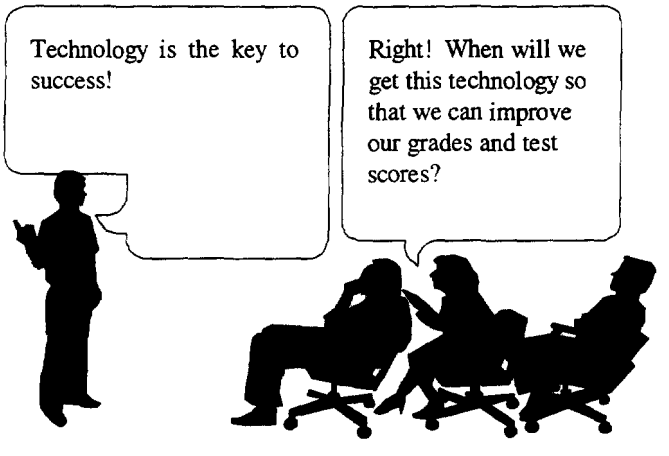
- Increase enthusiasm for learning.
- Decrease drop out rates.
- Develop higher self-esteem.
- Adapt to students' learning styles

Better Preparation for the Future

- Better preparation for the work force.
- Improve life styles.
- Prepare for better paying jobs.







Staff

Staff will have the technological tools to address students' individual learning styles and contribute to increased staff morale.

Improved Communications

- Increase district wide networking.
- Acquisition of more accurate information.
- Increase student/parent/community communications.
- Connect central offices.
- Improve public image.

Improved Morale

- Increased feeling of worth.
- Heightened enthusiasm in the work place.
- Increased professionalism.

Increased Efficiency and Productivity.

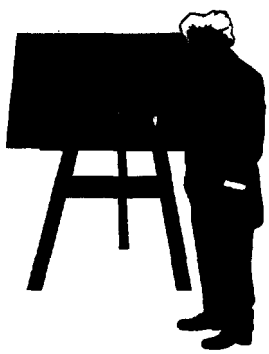
- Decrease paper work.
- Develop more knowledgeable staff.
- Provide more accurate student information.
- Complete more work in the day.
- Meet deadlines.

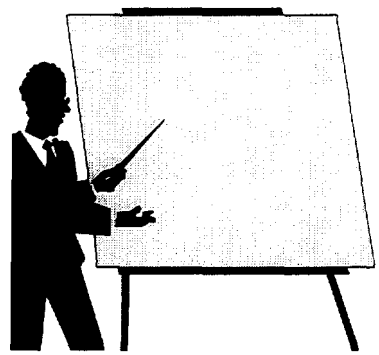
Equity

- Provide access to technology.
- Deliver opportunities for professional development.

Enhanced/Improved Instruction

- Match students' learning styles.
- Access to new tools for teaching.
- Develop new skills.
- Teach more effectively.
- Allow for individualized instruction





District

The district will have the technological tools to satisfy increasingly more complex and diverse demands for services, accountability and improved decision-making and better community relations.

Improved Student Learning

- Improve student test scores.
- Meet needs of "at risk" students.
- Equitable access to technology.
- Provide comprehensive services.

Improved Image

- Increase enthusiasm.
- Improve image with parents, staff and community.
- Immediate response to community concerns.

Cost Effectiveness and Efficiency

- Accurate records maintained.
- Use of money and labor to its maximum.
- Increase efficient use of staff.
- Increase level of performance.
- Improve services.
- Reduce duplication and paperwork.

Improved Communication

- Respond to community.
- Enhance accountability.
- Access to information at all levels.
- Increase speed of feedback regarding student information.
- Connect school, office and community.

Community

Community stakeholders believe the application of technology in our school district will improve the quality and effectiveness of services and instruction to students.

Better Communications

- Develop confidence in schools and district.
- Deliver fast feedback of student information.
- Support for programs.
- Increase community pride.
- Understand district expenditures.
- Develop trust and credibility.

Better Prepared Work Force

- Develop higher student skills.
- Prepare students for the future.
- Increase competency for leadership.

Increased Parent Involvement

- Provide more computer loaner programs for parents.
- Have more technology workshops.
- Improve school to home communications.

Life Long Learning Opportunities

- Expand knowledge of technology.
- Provide equitable access to technology.
- Increase enthusiasm for learning.
- Increase self-esteem.
- Improve life styles.

VIII. PROFESSIONAL DEVELOPMENT

Description

The Detroit Public Schools is making a commitment to provide all students an equal opportunity to become computer literate and to be able to engage in technology that will enhance their capacity for learning. This commitment involves the development of significant stakeholders besides students. Specifically, instructional and support staff, parents and community must also be apart of a lifelong learning technological community.

To provide this opportunity, a needs assessment conducted in the early phases of the development of the Technology Plan revealed that professional development was the most significant area of concern. Two objectives were of primary importance: to provide a variety of technological activities and learning opportunities for staff and community; and, to provide staff and community with the knowledge and skills required to prepare technologically capable students.

When translated into professional development opportunities, the objectives require strategies to be implemented in three phases to ensure that all levels of professional and support staff and community receive inservice based on their needs. In addition, learning opportunities must be continuous, sustained and coached experiences over a significant time period to guarantee success. The professional development and technical training needed to attain the goals and objectives of the technology plan involve a large spectrum of professional development learning opportunities consisting of basic awareness, intermediate, advanced and technical training.

The professional development learning opportunities provided are based on recommendations that discuss the need to be sensitive to the requests of over 1,000 surveys. The surveys reveal the need to provide quality time, awareness; collaboration between curriculum and technology units of operation; equitable access for all in terms of quality professional development; adequate and equitable resources to deliver effective professional development; and incentives to encourage staff to engage in professional development.

Outcomes

Participants involved in Professional Development learning opportunities will:

- Become computer literate.
- Engage in integration of technology for enhancement of:
    - Information gathering;
    - Instruction; and,
    - Personal competence in communication.
- Learn the advantages of building infrastructures that guide instruction, learning, and personal and professional management.

IX. IMPLEMENTATION

A. Phases

B. Costs

C. Funding Sources

A. PHASES

The Educational Technology Plan is an action plan that will use the concept of phased implementation. Phased implementation recognizes the constraints that time, budgets and human resources have on the implementation process. After careful consideration and much research, the Educational Technology Plan Action team decided that each phase would be associated with a definitive timeline. These timelines are flexible considering that variables such as costs, availability of human resources, the political climate, new technologies, and community support may cause a phase to take more or less time than is anticipated.

It is estimated that **Phase 1 (1995 - 1998)** would take approximately three (3) years to complete, **Phase 2 (1998 - 1999)**, one (1) year and **Phase 3 (1999 - 2000)**, one (1) year for a total implementation of five years. However, in some instances, phases may overlap. Schools may have already installed some components of the school models. Should additional funding become available to these schools, they may elect to implement school model components from each phase concurrently.

Project	1995	1996	1997	1998	1999	2000
Cabling/Wring						
• Installation of Instructional Wiring	■	■	■	■	■	■
• Installation of Administrative Wiring	■	■	■	■	■	■
• Installation of Cable Mgmt. Patch Panel	■	■	■	■	■	■
Communications						
• Installation of School Routers	■	■	■	■	■	■
• Installation School Hubs	■	■	■	■	■	■
• Installation of School Mutiplexors	■	■	■	■	■	■
• Installation of Central Site Routers	■	■	■	■	■	■
School Model - Classroom						
• Installation of Teacher Workstations	■	■	■	■		
• Installation of Laser Printers	■	■	■	■		
• Installation of 31" Monitors	■	■	■	■		
• Installation of Control Consoles	■	■	■	■		
• Installation of VCRs	■	■	■	■		
• Installation of Video Technology	■	■	■	■		
• Purchase Teacher Courseware & Licenses	■	■	■	■		
• Installation of File Servers	■	■	■	■	■	■
• Installation of Student Workstations				■	■	■
• Installation of Student Workstations Furniture				■	■	■
• Purchase Student Courseware & Licenses				■	■	■

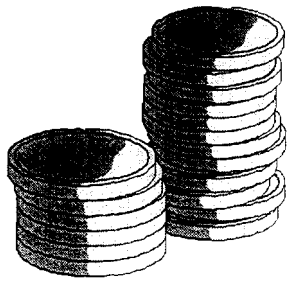
Project	1995	1996	1997	1998	1999	2000
School Model -Library Media Center						
• Installation of Circulation Stations						
• Installation of Network Stations						
• Installation of CD/VCR Distribution System						
• Installation of Workstation Furniture						
• Installation of Photocopiers						
• Installation of Flatbed Color Scanners						
• Installation of Software						
School Model - Computer Laboratory						
• Installation of Teacher Workstations						
• Installation of Student Workstations						
• Installation of High Speed Laser Printers						
• Installation of Workstation Furniture						
• Installation of Control Consoles						
• Installation of 31" Monitors						
• Installation of VCRs						
School Model - Distance Learning						
• Installation of Distance Learning Classrooms						
• Installation of Distance Learning Studio						
Resource Centers						
• Installation of School Wide Technology						
• Installation of Parent Resource Centers						
• Installation of Area Community Res. Centers						
Radio/TV Broadcast Studio						
• Installation of Radio/TV Broadcast Studio						
Administrative Model						
• Installation of Administrative Workstations						
• Installation of Administrative Printers						
AS400 Upgrade						
• Student Information System Upgrade						
• Library System Upgrade						
• Test Development System Upgrade						
• Area System Software Upgrades or Relocations						
Professional Development						
• Train Teachers						
• Train Technical Coordinators						
• Train Administrative Personnel						
• Train Community Personnel						
Staffing						
• Hire/Assign Technical Coordinators						
Measurement and Assessment						
• Measure & Assess Technology Effectiveness						
Marketing the Plan						
• Market the plan						

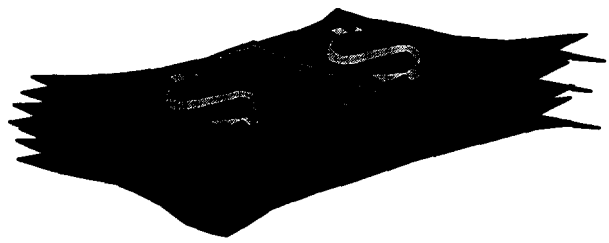
B. COSTS

Item Description	Phase 1 Quantity	Average Cost/Site	Phase 1 Cost	Phase 2 Quantity	Average Cost/Site	Phase 2 Cost	Phase 3 Quantity	Average Cost/Site	Phase 3 Cost	Total Cost Phases 1,2,3
Cabling / Wiring										
Instructional Wiring	87	46,332	$4,030,884	86	46,332	$3,984,552	86	46,332	$3,984,552	$11,999,988
Administrative Wiring	87	10077	$876,699	86	10077	$866,622	86	10077	$866,622	$2,609,943
Cable Mgmt Patch Panel	87	1000	$87,000	86	1000	$86,000	86	1000	$86,000	$259,000
Subtotals			$4,994,583			$4,937,174			$4,937,174	$14,868,931
Communications										
School Routers	87	2000	$174,000	86	2000	$172,000	86	2000	$172,000	$518,000
School Hubs	87	1000	$87,000	86	1000	$86,000	86	1000	$86,000	$259,000
School Multiplexors	2667	800	$2,133,600	2667	800	$2,133,600	2667	800	$2,133,600	$6,400,800
Central Site Routers	5	58000	$290,000	5	58000	$290,000	5	58000	$290,000	$870,000
Subtotal			$2,684,600			$2,681,600			$2,681,600	$8,047,800
School Model - Classroom										
Teacher WorkStation	8,000	6000	$48,000,000							$48,000,000
Laser Printer	8,000	600	$4,800,000							$4,800,000
31" Monitor	16,000	**1000**	$12,800,000							$16,000,000
Control Console	8,000	1000	$8,000,000							$8,000,000
VCR	8,000	300	$1,600,000							$2,400,000
Video Technology	8,000	600	$4,800,000							$4,800,000
Courseware Licenses	10	100000	$1,000,000							$1,000,000
File Server	87	10000	$870,000	86	10000	$860,000	86	10000	$860,000	$2,590,000
Subtotal			$85,870,000			$860,000			$860,000	$87,590,000
Student Workstation (5) per Classroom				20,000	3,000	$60,000,000	20,000		$60,000,000	$120,000,000
Workstation Furniture				4,000	1,000	$4,000,000	4,000		$4,000,000	$8,000,000
Courseware Licenses				25	100000	$2,500,000	25		$2,500,000	$5,000,000
Subtotal						$66,500,000			$66,500,000	$133,000,000
School Model - Library Media Center										
Circulation Station (5)				650	3,000	$1,950,000	645	3,000	$1,935,000	$3,885,000
Network Station (15)				1,950	3,000	$5,850,000	1,935	3,000	$5,805,000	$11,655,000
CD/VCR Distribution System				130	5,000	$650,000	129	5,000	$645,000	$1,295,000
Workstation Furniture				130	500	$65,000	129	500	$64,500	$129,500
Photocopier				130	20,000	$2,600,000	129	20,000	$2,580,000	$5,180,000
Flatbed Color Scanner				130	1,500	$195,000	129	1,500	$193,500	$388,500
Library Auto Software				130	1,000	$130,000	129	1,000	$129,000	$259,000
Subtotal						$11,440,000			$11,352,000	$22,792,000

Item Description	Phase 1 Quantity	Average Cost/Site	Phase 1 Cost	Phase 2 Quantity	Average Cost/Site	Phase 2 Cost	Phase 3 Quantity	Average Cost/Site	Phase 3 Cost	Total Cost Phases 1,2,3
School Model - Computer Lab										
Teacher Workstation (1) Dual Platform				130	6000	$780,000	129	6000	$774,000	$1,554,000
Student Workstation (35)				4550	3000	$13,650,000	4515	3000	$13,545,000	$27,195,000
High speed Laser Printer (2)				260	2000	$520,000	258	2000	$516,000	$1,036,000
Workstation Furniture				130	500	$65,000	129	500	$65,000	$129,500
Control Console				130	1000	$130,000	129	1000	$130,000	$259,000
31" Monitor				260	800	$260,000	258	800	$206,400	$466,400
VCR				130	300	$39,000	129	200	$25,800	$64,800
Subtotal						$15,444,000			$15,262,200	$30,704,700
School Model - Distance Learning										
Distance Learning Classroom	30	10000	$300,000	130	10000	$1,300,000	129	10000	$1,290,000	$2,590,000
Distance Learning Studio	1	70000	$70,000							$70,000
Subtotal			$370,000			$1,300,000			$1,290,000	$2,960,000
Resource Centers										
School Wide Technology				318	180000	$57,240,000				$57,240,000
Parent Resource Center				259	31000	$8,029,000				$8,029,000
Area Community Resource Center				6	31000	$186,000				$186,000
Subtotal						$65,455,000				$65,455,000
Radio/TV Broadcast Studio										
Radio/TV Broadcast Studio							1	120000	$1,200,000	$1,200,000
Subtotal									$1,200,000	$1,200,000
Administrative Model										
Student Information System Upgrade	1	1,000,000	$1,000,000							
Library System Upgrade	1	450,000	$450,000							
Test / Development System Upgrade	1	450,000	$450,000							
Area System Software Upgrades or Relocations	3	20,000	$60,000							
Admin Workstations	1238	3000	$3,714,000	1238	3000	$3,714,000	1238	3000	$3,714,000	$11,142,000
Admin Printers	619	600	$371,400	619	600	$371,400	619	600	$371,400	$1,114,200
Subtotal			$6,045,400			$4,085,400			$4,085,400	$14,216,200

Professional Development	Qty Pers.	Phase 1		Qty Pers.	Phase 2		Qty Pers.	Phase 3		Total Cost
	Trained	Avg. Cost Person		Trained	Avg. Cost Person		Trained	Avg. Cost Person		Phases 1,2,3
Teachers	9115	35	$319,025	4558	35	$159,530	4557	35	$159,495	$638,050
Technical Coordinator	259	100	$25,900	130	100	$13,000	129	100	$12,900	$51,800
Administrative	1238	35	$43,330	1238	35	$43,330	1238	35	$43,330	$129,990
Community	1500	17	$25,500	1500	17	$25,500	1500	17	$25,500	$76,500
Subtotal			$413,755			$241,360			$241,225	$896,340
Item	**Phase 1**	**Average**	**Phase 1 Cost**	**Phase 2**	**Average**	**Phase 2 Cost**	**Phase 3**	**Average**	**Phase 3 Cost**	**Total Cost**
Description	**Quantity**	**Cost/Site**		**Quantity**	**Cost/Site**		**Quantity**	**Cost/Site**		**Phases 1,2,3**
Staffing										
Staffing - Technical Coordinator	259	50000	$12,950,000							$12,950,000
Miscellaneous										
Measurement & Assessment			$31,000			$182,000			$72,000	$285,000
Marketing the Plan			$50,000			$30,000			$20,000	$100,000
Subtotal			$13,031,000			$212,000			$92,000	$13,335,000
TOTALS			$113,409,338			$173,156,534			$108,500,099	$395,065,971





C. FUNDING SOURCES

Implementation of the district's Educational Technology Plan will require a variety of funding methods. An in-depth analysis of funding solutions, equity issues, district staff, public support, promotional efforts, and ongoing financial planning will be required for a successful and complete implementation and continued support of technology.

The district must establish a method of identifying expenditures from all funding sources to reflect costs associated with technology. These funds can then be more efficiently directed towards the acquisition of technology. The Technology Plan Action Team submits the following funding options for consideration:

Bond

- Funds have already been identified for the acquisition of technology in the bond passed in the November, 1994 election.

Grants

- The district will provide assistance to schools, departments, and staff in making application for technology grants.

Title 1 and 31a Funds

- The district will provide assistance to schools in determining how these funds can be utilized for school-wide technology.

Technological Partnerships

- The district will establish and encourage partnerships between the Detroit Public Schools and public and private sector businesses, organizations and individuals. These partnerships could take the form of shared use, work-study programs, equipment on loan, sponsor a child, sponsor a classroom, or donations.

X. APPENDICES

A. Study Methodology

B. Participant List

C. Survey Results

D. Technology Planning Guide

E. Glossary